

AMENDMENTS TO CLAIMS

The status of all claims and the text of pending claims, with markings to show current changes relative to the immediately prior version, follows.

1 - 9: Canceled

10. (original) Apparatus for an electron gun, the apparatus comprising:
a head having a thermionic electron source that extends in a longitudinal direction and further having at least one reference member;
an accelerating electrode; and
a platform positioned spaced apart from the accelerating electrode and having at least one locating member adjustably located on the platform, the location of the at least one locating member being adjustable by at least nine millimeters in a direction transverse to the longitudinal direction, wherein the at least one reference member engages the at least one locating member to position the head in three dimensions relative to the accelerating electrode.

11. (original) The apparatus of claim 10 wherein the one of the at least one reference member and the at least one locating member comprising a projection, the other of the at least one reference member and the at least one locating member comprising a recess.

12. (original) The apparatus of claim 10 wherein the at least one reference member of the head comprises two recesses and the at least one locating member of the platform comprises two projections.

13. (original) The apparatus of claim 10 wherein the at least one locating member of the platform comprises a spacer having two holes, the platform further having screws, each of the screws having a head and a shank, the shank having a diameter, the shank of the screws extending through the holes and engage the platform, the holes being elongated relative to the diameter of the shank to provide a clearance between the spacer and the shank to facilitate

adjustment of the position of the locating member relative to the platform and the accelerating electrode.

14. (original) The apparatus of claim 10 wherein the at least one reference member of the head comprises two recesses and the at least one locating member of the platform comprises two locating members, each of the locating members comprising a spacer and a projection, each of the spacers having two holes, the platform further having screws, each of the screws having a head and a shank, the shank having a diameter, the shank of the screws extending through the holes and engage the platform, the holes being elongated relative to the diameter of the shank to provide a clearance between the spacer and the shank to facilitate adjustment of the position of the locating member relative to the platform and the accelerating electrode.

15. (amended) Apparatus for an electron gun, the apparatus comprising:
a head having a thermionic electron source that extends in a longitudinal direction, and has at least one reference member;

an accelerating electrode;

a platform that supports the head and having at least one locating member adjustably located on the platform, the location of the at least one locating member being adjustable by at least nine millimeters, wherein the at least one reference member engages the at least one locating member to position the head in three dimensions relative to the accelerating electrode;
and

at least one platform support supported by the accelerating electrode and having a support surface that is adjustably spaced from the accelerating electrode and supports the platform.

16. (original) The apparatus of claim 15 wherein the at least one platform support comprises an insulator, an insulator cover, and a support member, the insulator cover is retained to the insulator and has an engagement surface, and the support member has the support surface disposed thereon and engages the engagement surface to adjustably space the support surface from the accelerating electrode.

17. (original) The apparatus of claim 16 wherein the engagement surface of the insulator cover comprises a plurality of threads, and the support member is a support ring with a plurality of threads that engage the threaded engagement surface of the insulator cover.

18. Cancelled.

19. (original) The apparatus of claim 17 wherein the head has at least one reference member and the platform has at least one locating member adjustably located on the platform, the at least one locating member having a location on the platform, the location of the at least one locating member being adjustable by at least nine millimeters, wherein the at least one reference member engages the at least one locating member to position the head in three dimensions relative to the accelerating electrode.

20. (original) The apparatus of claim 15 wherein the at least one reference member of the head comprises two recesses and the at least one locating member of the platform comprises two locating members, each of the locating members comprising a spacer and a projection, each of the spacers having two holes, the platform further having screws, each of the screws having a head and a shank, the shank having a diameter, the shank of the screws extending through the holes and engage the platform, the holes being elongated relative to the diameter of the shank to provide a clearance between the spacer and the shank to facilitate adjustment of the position of the locating member relative to the platform and the accelerating electrode.

21. (original) The apparatus of claim 17 wherein the at least one reference member of the head comprises two recesses and the at least one locating member of the platform comprises two locating members, each of the locating members comprising a spacer and a projection, each of the spacers having two holes, the platform further having screws, each of the screws having a head and a shank, the shank having a diameter, the shank of the screws extending through the holes and engage the platform, the holes being elongated relative to the diameter of the shank to provide a clearance between the spacer and the shank to facilitate adjustment of the position of the locating member relative to the platform and the accelerating electrode.